

中国菊科千里光族八新种

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EIGHT NEW SPECIES OF THE TRIBE SENECEONEAE (COMPOSITAE) FROM CHINA

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Key words Compositae; Tribe Senecioneae; new species

关键词 菊科; 千里光族; 新种

异头垂头菊 新种 图 1

Cremanthodium heterocephalum Y. L. Chen, sp. nov.

Species capitulis heteromorphis plerumque 4—7 ad apicem caulis et in axillis foliorum superiorum racemosis terminalibus magnis, involucri hemisphaerico 3—3.5 cm diam., phyllariis involucri 13—15, flosculis ligulatis 13—15, eis axillaribus minoribus, involucri campanulato vix 1 cm diam., phyllariis 8, flosculis ligulatis 9—11 a aliis congeneris distincta; probabiliter *C. obovato* Ling et S. W. Liu affinis, sed capitulis heteromorphis facile differt.

Herba perennis, rhizomate ignoto. Caulis robustus, basi usque 6 mm crassus, erectus, 30 cm altus, simplex, viridis vel purpurascens, inferne sparse, superne dense purpureo-brunneo-pilosus. Folia longe petiolata, basilaria conferta; lamina papyracea, reniformi-flabelliformis, 4—6 cm longa, 5—8 cm lata apice rotundata vel interdum leviter retusa, basi cuneata, margine breve triangulari-dentata, mucronulata, 5-palminervia, costa nervisque subtus conspicue prominentibus, utrinque glabra vel tantum margine sparse ciliata; petiolus crassus, basi dilatatus, semiamplexicaulis; folia media minora, flabelliformia vel late spatulata, 2—3 cm longa, c. 3 cm lata, petiolo breviora basi vix dilatata, superiora bracteiformia, anguste oblanceolata vel linearia, sessilia vel subsessilia, 2.5—5 cm longa, 2—3(5) mm lata, apice acutiuscula vel obtusa, integra vel interdum 2—3-denticulata. Capitula radiata, nutantia, plerumque 4—7, ad apicem caulis et in axillis foliorum superiorum in racemum disposita, terminalia magna; pedunculi breves, crassi, dense brunneo-pilosi. Involucri hemisphaericum 3—3.5 cm diam.; phyllaria 13—15, atroviridia, oblonga vel late oblonga, 15—17 mm longa, 3—7 mm lata, apice obtusa, brunneo-puberula, inconspicue 3—5-nervia, margine late brunneo-scariosa. Flosculi ligulati 13—15, tubo 4—5 mm longo, ligulis flavis oblongis 25—28 mm longis 5—6 mm latis apice tridentatis 7—9-nervibus; ei rubulosi numerosi, c. 10 mm longi, tubo 3.5—4 mm longo, limbo anguste infundibulari, lobis 5 ovato-oblongis. Antherae purpureae, c. 4 mm longae, basi obtusae. Styli rami obtusi, papilloso. Achaenia oblonga vel subcylindrica, 5—6 mm longa, glabra, costata; pappi setae brunnescentes, 7—8 mm longae. Capitula axillaria minora; pedunculi tenues, usque

ad 19 cm longi; involucrum campanulatum c. 10 mm diam., basi 2—3-bracteolatum; phyllariis 8, oblongis vel elliptico-oblongis, 9—11 mm longis, 3—5 mm latis, apice obtusis, mucronulatis, margine brunneo-puberulis; Flosculi ligulati 9—11, ligulis oblongis 12—13 mm longis 4—5 mm latis apice tridenticulatis, ei tubulosi 7—8 mm longi, tubo 3—3.5 mm longo, limbo infundibulari. Achaenia (immatura) cylindrica, 1.5 mm longa, glabra; pappi setae flavo-brunnescentes, 4—5 mm longae.

Yunnan (云南): Zhongdian (中甸), in prato alpino lapidoso, alt. 3900—4100m, 10 Aug. 1981, Exped. Hengduanshan. (横断山队) 2869 (Typus, PE)

本种具有异形的头状花序, 通常 4—7 个着生于茎端和上部叶腋, 总状排列; 顶生的头状花序大, 总苞半球形, 直径 3—3.5 cm; 总苞片和舌状花 13—15; 而腋生的头状花序小; 总苞钟状, 径不超过 1 cm; 总苞片 8; 舌状花 9—11, 在本属的种类中很特殊。它可能与硕头垂头菊 *C. obovatum* Ling et S. W. Liu 近似, 但以具有异形的头状花序与后者相区别。

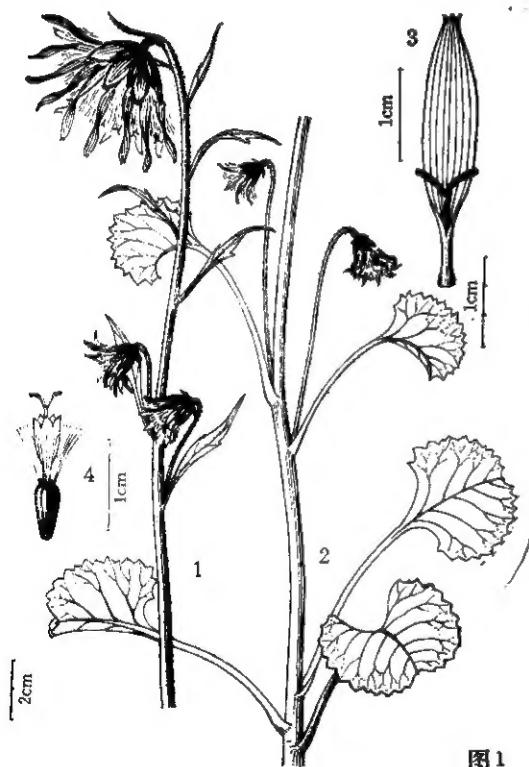


图1 异头垂头菊 *Cremanthodium heterocephalum* 1—2. 植株 habit; 3. 舌状花 ray-floret; 4. 管状花 disc-floret. (张泰利绘)

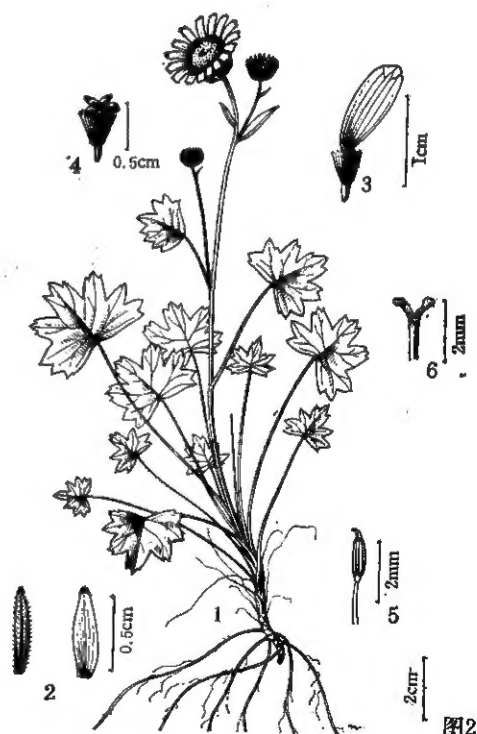


图2 武夷华千里光 *Sinosenecio wuyiensis* 1. 植株 habit; 2. 总苞片 phyllaries; 3. 舌状花 ray-floret; 4. 管状花 disc-floret; 5. 花药 anther; 6. 花柱分枝 style-arms. (冀朝桢绘)

武夷华千里光 新种 图2

Sinosenecio wuyiensis Y. L. Chen, sp. nov.

Species *S. latouchei* (J. F. Jeffrey) B. Nord. similis, a quo foliis caulinis 4—5 crasse papyraceis late flabelliformibus vel subrotundatis palmatipartitis, lobis late oblongis apice saepe 2—3-triangulari-dentatis utrinque glabris, involucri minore (vix 10 mm diam.) differt. a *S. guangxiensis* C. Jeffrey et Y. L. Chen bracteolis externis 8—10, foliis supra brunneo-pilosis subtus dense albo-tomentosis distat.

Herba perennis, rhizomate tenui, erecto vel adscendente collo reliquis petiolorum flavo-araneosis praedito radices fibrosas paucas edente. Caulis tenuis, (6)10—20 cm altus, erectus, simplex vel rarius ramosus, striatus, inferne sparse araneosus, superne glaber. Folia basilaria rosulata, sub anthesi viva, longe petiolata; lamina papyracea vel subcoriacea, late flabelliformis vel subrotundata, 1.5—2.5 cm longa, 1.5—3 cm lata basi cordata vel subtruncata, palmatipartita, rarius grosse dentata, lobis late oblongis 5—6 mm longis 6—7 mm latis apice saepe 2—3 dentatis, supra viridis, subtus purpurascens, utrinque glabra, 5—7-palmatinervis, costa nervisque subtus conspicue prominentibus; petiolo 3—5 cm longo, tenui, basi leviter dilatato; ea caulina foliis basilaribus conformia; lamina 1.5—2.5 cm longa, 2—4 cm lata, petiolis brevioribus basi leviter dilatatis semiamplexicaulibus, suprema bracteiformia, oblanceolata vel linearia, 3—5-lobata vel interdum integra, sessilia. Capitula radiata, pierumque 2—3, rarius 5 ad apicem caulis sub corymbosa, rarius solitaria, 2—3 cm diam. pedunculis gracilibus 2—3.5 cm longis, bracteolis linearibus 5—15 mm longis acutis integris vel interdum 2—3-lobulatis. Involucrum semisphaerico-campanulatum, 5—6 mm longum, 8—10 mm latum; phyllaria uniseriata, c. 13, herbacea, oblongo-lanceolata, 1—1.5 mm lata, apice acuta vel acutiuscula, purpurascens, ciliata, margine scariosa, dorso sparse puberula vel subglabra, obscure 3-nervia. Flosculi ligulati 13—14, tubo 2 mm longo; ligula flava, oblonga, 10—11 mm longa, 2.5—3 mm lata, apice tridenticulata; ei tubulosi, numerosi, flavi, 3.5—4 mm longi, tubo 1.5 mm longo, limbo campanulato, lobis 5 ovato-lanceolatis acutis. Antherae oblongae, basi obtusae; styli rami recurvati, apice truncati, papilloso. Achaenia (immatura) cylindrica, c. 1.5 mm longa, sparse puberula; pappi setae albae, 2—3 mm longae.

Fujian (福建): Chongan (崇安), Tongmu ad Wangganshan (桐木至黄岗山), in rupestris, alt 1700 m, 2 Aug. 1981, Exped. Wuyi. (武夷调查队) 2432 (Typus, FTI); ibidem, in prato herboso, alt. 1200 m, Exped. Wuyi. (武夷调查队) 2300. Jiangxi (江西): Shangrao (上饶), Qian Shan (铅山), in prato herboso alpino, alt. 2157 m, Lai Shu-Shen et Wang Jianglin (赖书绅 王江林) 41.

此种与赣闽华千里光 *S. latouchei* (J. F. Jeffrey) B. Nord. 比较接近, 但叶片厚纸质, 宽扇形至近圆形, 掌状中裂, 裂片宽长圆形, 顶端常具 2—3 个三角形粗齿; 总苞较小, 直径不超过 10 mm, 与后者不同。与桂华千里光 *S. guangxiensis* C. Jeffrey et Y. L. Chen 的区别在于后者总苞基部有 8—10 个线形外苞片; 叶上面被褐色短毛, 下面被白色密绒毛。

植夫华千里光 新种 图 3

Sinosenecio fangianus Y. L. Chen, sp. nov.

Forma foliorum et habitu *S. cuosmi* (Hand.-Mazz.) B. Nord. similis, sed a quo foliis 7—9-palmatipartitis, lobis ovato-oblongis 1.5—3 cm latis, eis medianis 2—3-dentato-lobatis, petiolo basi vix dilatato examplexicauli, capitulis 4—5 rarius solitariis, involucri majore 5—7 mm diam. differt. A *S. cortusifolio* (Hand.-Mazz.) B. Nord. petiolis foliorum basi vix dilatatis

exalatisque, laminis palmatisectis, lobis ovato-oblongis, capitulis minoribus diversus.

Herba perennis, stolonifera, rhizomate brevi 4—5 mm diam. radices fibrosas numerosas edente. Caulis erectus, 30—60 cm altus, simplex, viridis, sparse albo-pilosus. Folia basilaria sub anthesi emortua, petiolata; lamina reniformis, 3—6 cm longa, 3—7 cm lata palmatisecta, lobis 7—9 ovato-oblongis 1.5—2.5 cm longis 1—2 cm latis integris vel interdum 2—3-denticulatis, basi profunde cordata, supra viridis glabra vel sparse pilosula, subtus albo-araneosa vel pilosa, margine ciliata, 5-palmatinervis, nervis utrinque prominentibus; folia caulina media superioraque eis inferioribus similia, sed minora; petiolis inferioribus 3—7 cm longis, sparse pilosis, basi vix dilatatis; folia suprema minora, in bracteas transientia, 3—5-lobata vel integra, breve petiolata vel subsessilia Capitula radiata, plerumque 4—5 corymbosa, rarius solitaria, 2—2.5 cm diam: pedunculi tenuis, 1.5—2 cm longi, sparse pilosuli, unibracteati. Involucrum subcampanulatum, 4—5 mm longum, 5—7 mm latum, basi ebracteatum; phyllaria uniseriata, c. 15, lanceolata vel late lanceolata, 1—1.5 mm lata, apice acuminata, albo-ciliata, margine anguste scariosa, dorso glabra, 1—3-nervia. Flosculi ligulati, c. 13, tubo 2 mm longo; ligula flava, oblonga vel lineari-oblonga, 8—10 mm longa, 1—1.5 mm lata, apice integra, 4-nervis; ei tubulosi numerosi, flavi, 4—4.5 mm longi, tubo 1.5—2 mm longo, limbo campanulato, lobis 5 ovato-lanceolati acutis puberulis. Antherae oblongae, 1.5 mm longae, basi obtusae; styli rami recurvati, apice truncati, papilloso. Achaenia (immatura) cylindrica, c. 1 mm longa, glabra; pappi setae albae, c. 3 mm longae.

Sichuan (四川): Maoli (茂县, 理县), He Zhu et Zhou Zi-lin (何铸, 周子林) 12934 (Typus, PE), 13195.

叶形和体态甚似耳柄华千里光 *S. euosmus* (Hand.-Mazz.) B. Nord., 但叶 7—9 掌状中裂; 裂片卵状长圆形, 宽 1.5—3 cm; 中央的裂片具 2—3 齿裂; 叶柄基部不扩大, 不抱茎; 头状花序 4—5, 稀单生; 总苞较大, 径 5—7 mm 相区别。与翅柄华千里光 *S. cortusifolius* (Hand.-Mazz.) B. Nord. 的区别在于叶柄基部不扩大, 无翅; 叶片掌状中裂至掌状深裂, 裂片卵状长圆形; 头状花序较小。

圆叶华千里光 新种 图 4

Sinosenecio rotundifolius Y. L. Chen, sp. nov.

Habitu *S. hederifolius* (Dum.) B. Nord. affinis, sed foliis minoribus rotundatis subintegris vel inconspicuis mucronulatis subtus subglabris, scapo ebracteolato, phyllariis involucri glabris valde distinctus. A *S. subrosulato* (Hand.-Mazz.) B. Nord. foliis caulinis nullis, capitulo solitario differt.

Herba perennis, rhizomate brevi, collo reliquis petiolorum sericeo-lanatis dense praedito radices fibrosas paucas edente. Caulis singulus, scapiformis, 20 cm altus, tenuis, purpurascens, simplex, superne sparse flavi-brunneo-pilosus. Folia basilaria rosulata, longe petiolata; lamina rotundata vel rarius reniformi-rotundata, 1.5—2 cm longa et lata, apice rotundata, basi cordata, margine subintegra vel interdum repanda, mucronulata, 5-rarius 7-palmatinervis, costa nervisque subtus plus minusve prominentibus, supra intense viridis, glabra, subtus pallida, primo sparse flavo-brunneo-araneosa, deinde glabrata; petiolus tenuis, 3—5 cm longus basi leviter dilatatus, dense sericeo-brunneo-lanatus. Capitula ad apicem caulis solitaria, radiata; involucrum campanulatum, 6—7 mm longum, 7—8 mm latum, externe ebracteolatum, sub capitulo dense tomentoso; phyllaria uniseriata, 13—15, oblongo-lanceolata, 1—1.5 mm lata, acuminata, purpurascens, puberula, margine anguste scariosa, dorso glabra. Flosculi ligulati 11—13, rarius 15,

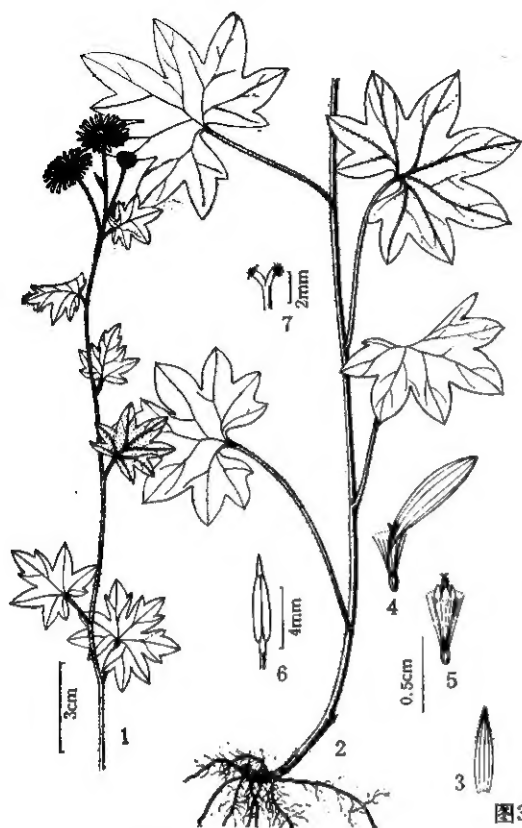


图3 植夫华千里光 *Sinosenecio jangianus* 1—2. 植株 habit; 3. 总苞片 phyllary; 4. 舌状花 ray-floret; 5. 管状花 disc-floret; 6. 花药 anther; 7. 花柱分枝 style-arms.

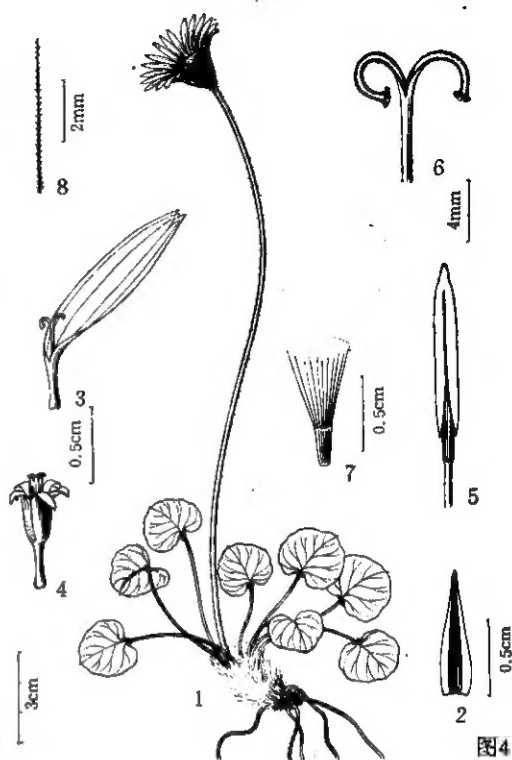


图4 圆叶华千里光 *S. rotundifolius* 1. 植株 habit; 2. 总苞片 phyllary; 3. 舌状花 ray-floret; 4. 管状花 disc-floret; 5. 花药 anther; 6. 花柱分枝 style-arms; 7. 瘦果 achene; 8. 冠毛 pappus-hair. (张荣利绘)

tubo 3—3.5 mm longo, ligulis flavis oblongis 2.5—3 mm latis apice denticulatis 4-nervibus; ei tubulosi numerosi, flavi, 5—6 mm longi, tubo 2 mm longo, limbo campanulato, lobis 5 ovato-lanceolatis acuminatis papillois. Antherae oblongae, 2.5—3 mm longae, basi obtusae; styli rami recurvati, apice truncati, pillosi. Achaenia cylindrica, circ 3 mm longa, glabra, costata; pappi setae albae, 5—6 mm longae.

Sichuan (四川): Sungpan (松潘), in declivo lapidoso, alt. 2430 m, 9 May 1962, Exped. Inst. Biol. Sichuan. (四川生物所调查队) 702 (Typus, HSBI).

外形近似单头华千里光 *S. hederifolius* (Dum) B. Nord. 但叶小, 圆形, 近全缘, 或具不明显的小尖, 下面近无毛; 花萼无苞片; 总苞片无毛, 显然不同; 而与近莲座华千里光 *S. subrosulatus* (Hand. -Mazz.) B. Nord. 的区别是茎生叶缺如; 头状花序单生于茎端。

木里尾药菊 新种 图版 1: 图 1

Synotis muliensis Y. L. Chen, sp. nov.

Species *S. vaniotii* (Lévl.) C. Jeffrey et Y. L. Chen affinis, sed a qua foliis 3—5-palmatisectis (non pinnatipartitis), phyllariis involucri flosculisque 5, pappi setis albis facile differt.

Herba perennis, rhizomate ignoto. Caulis erectus, 20 cm altus, conspicue striatus, superne ramosus, adpresse pilosus vel subglaber. Folia petiolata; lamina papyracea, triangulari-ovata vel ovato-lanceolata, 8—10 cm longa, 5—7.5 cm lata, 3—5-palmatipartita, basi cordata vel late cuneata, lobo terminali magno triangulari-ovato usque lanceolato acuminato vel longe acuminato margine irregulariter deltoideo-dentato, lobis lateralibus ovato-triangularibus vel ovato-oblongis apice acutis integris vel 2—3-dentatis, supra viridis, sparse brunneo-pilosa, subtus sparse pilosa; petiolus 3—4 cm longus, brunneo-pilosus, basi dilatatus; folia superiora minora, triangulari-lanceolata vel lanceolata, trilobata, lobis denticulatis vel integris, petiolo breviora. Capitula discoidea, numerosa, ad apicem caulis et in axillis foliorum superiorum pyramidalis-paniculata, breve pedunculata vel sessilia; pedicelli dense lanati; bracteolis 2—3, minutis, triangularibus. Involucrum cylindricum, 6—7 mm longum, 2—3 mm latum, bracteolis 2—3, subulatis; phyllaria 5, subcoriacea, oblonga, 1—1.5 mm lata, apice obtusa vel rotundata, puberula, margine late scariosa, dorso glabra. Flosculi omnes tubulosi, 5, disco conspicue longiores, flavi, 6—7 mm longi, tubo 3—3.5 mm longo, limbo infundibularia, lobis 5 oblongo-lanceolatis apice papillosis. Antherae lineares 3—3.5 mm longae, basi longe caudatae, collo filamenti crasso basi leviter dilatato; styli rami apice obtusi, papilloso. Achaenia cylindrica, c. 3 mm longa, sparse puberula; pappi setae albae, c. 6 mm longae.

Sichuan (四川): Muli (木里), in declivo herboso, alt. 2450 m, 25 Aug. 1978, Zhao Qing-Sheng (赵清盛) 8640 (Typus, SIB); ibidem, in rupestris siccis, alt. 2500 m, Zhao Qing-Sheng (赵清盛) 6170; Wu Su-kong 3295; ibidem, in rupibus ad marginem silvae, frondosae, alt. 2700, Exped. Qingzang. (青藏考察队) 83-4078.

本种与贵州产的羽裂尾药菊 *S. vaniotii* (Levl.) C. Jeffrey et Y. L. Chen 近缘, 但叶 3—5 掌状深裂(非羽状深裂); 总苞片和小花各 5; 冠毛白色; 瘦果被短毛容易区别。

掌裂尾药菊 新种 图版 1: 图 2

Synotis palmatisecta Y. L. Chen et J. D. Liu*, sp. nov.

Affinis *S. vaniotii* (Levl.) C. Jeffrey et Y. L. Chen et *S. muliensis* Y. L. Chen, sed a primo foliis 5-palmatisectis (non pinnatipartitis), lobis latioribus oblongo-lanceolatis supra ad nervos pilosis differt; a secundo foliis 5-palmatisectis, involucri phyllariis flosculisque 3, achaeniis glabris, pappi setis rubescentibus facile differt.

Herba perennis, rhizomate lignoso robusto 8—10 mm diam. radices fibrosas paucas edente. Caulis erectus, striatus, 35—40 cm altus, simplex flexuosus, viridis, glaber. Folia longe petiolata, basalia sub anthesi emortua; lamina foliorum onediourm ambitu late ovato-triangularis, 6—8 cm longa, 5—6.5 cm lata, basi cordata, 5-palmatisecta, lobo terminali latiore oblongo-lanceolato 2.5—3 cm lato grosse dentato vel lobato apice acuminato lobis lateralibus angustioribus 2—3-denticulatis 5-palmatinervibus, costa nervisque subtus conspicue prominentibus, supra viridis, ad nervos pilosa, subtus pallida, glabra; petiolus 3.5—4 cm longus, basi vix dilatatus; folia superiora mediis conformia, minora, suprema lanceolata, trilobata vel integra, breve petiolata vel sessilia. Capitula discoidea, numerosa ad apicem caulis et in axillis foliorum superiorum cymoso-paniculata, pedunculis 4—5 mm longis sparse puberulis, bracteolis 1—2 squamiformibus. Involucrum cylindricum, 4—5 mm longum, 1.5—2 mm latum, basi 1—2-bracteolatum; phyllaria 3, late oblonga, c. 2 mm lata, apice rotundata, ciliata, subcoriacea, margine late scariosa, dorso glabra. Flosculi 3, omnes tubulosi, conspicue disco longiores, flavi, 6—7 mm longi, tubo 3

* J.D.Liu (刘大济)

mm longo, limbo infundibulari, lobis 5 ovato-lanceolatis acutis puberulis. Antherae lineares, 2.5—3 mm longae, basi longe caudatae, collo filamentorum basi leviter dilatato; styli rami recurvati, apice obtusi, papilloi. Achaenia cylindrica, 3—3.5 mm longa, glabra, costata Pappi setae rubescentia, 6—7 mm longae.

Guizhou (贵州): Quiyang (贵阳), Guizhou Medical College (贵州医学院), s.n. (无号) (Typus, HMCg).

本种近似羽裂尾药菊 *S. vaniotii* (Lévl.) C. Jeffrey et Y. L. Chen 和木里尾药菊 *S. muliensis* Y. L. Chen, 与前者区别在于叶掌状 5 裂 (非羽状分裂), 裂片较宽, 长圆状披针形, 上面沿脉被短柔毛; 而与后者则以叶掌状 5 深裂; 总苞片和小花 3; 瘦果无毛; 冠毛红褐色容易区别。

稻城千里光 新种 图版 1: 图 3

Senecio daochengensis Y. L. Chen, sp. nov.

Species habitu *S. drukensis* Marq. et Shaw persimilis, a quo planta subglabra, foliis utrinque glabris margine subintegris in sicco revolutis, petiolo exalato, capitulis plerumque 3—4 ad apicem caulis in racemum dispositis, involucri 5—8 mm diam., phyllariis involucri glabris apice et margine fimbriatis, flosculis ligulatis 8—11, tubo puberulo valde differt.

Herba perennis, rhizomate robustiore 5—8 mm diam. radices fibrosas paucas edente. Caulis erectus, 20—25 cm altus, simplex, viridis vel superne purpurascens, glaber vel interdum sparse araneoso-pilosus. Folia basalia sub anthesi saepe emortua, inferiora longe petiolata; lamina ovata vel ovatoelliptica, 2.5—3 cm longa, 1.2—2 cm lata, apice obtusa vel rotundata, basi cuneatim in petiolum 3—3.5 cm longum abrupte angustata, margine integra vel obscure denticulata, in sicco revoluta, nervis lateralibus 2—3-jugis, utrinque glabra vel subglabra; petiolus exalatus, basi leviter dilatatus; folia caulina media superioraque anguste lanceolata vel linearia, sessilia vel subsessilia, 2.5—4.5 cm longa, 0.3—5 cm lata, apice acutiuscula vel obtusa, basi leviter dilatata, amplexicaulia. Capitula plerumque 3—4 in racemum disposita, bracteolis linearibus 10—15 mm longis, pedunculis 5—10 (40) mm longis nutantibus sparse araneoso-pilosis. Involucri anguste campanulatum vel cylindricum, 7—10 mm longum, 5—8 mm latum, basi bracteolis 5—8, subulatis, atro-purpureis praeditum; phyllaria c. 15, lineari-lanceolata, disco conspicue breviora, 1—2 mm lata, apice acuta, puberula, atro-brunneo-marginata, dorso glabra. Flosculi ligulati 8—11, tubo 3 mm longo, superne sparse puberuli, ligulis flavis oblongis vel oblongo-ellipticis 7 mm longis 2—3.5 mm latis apice tridentatis 4—5-nerviis; ei tubulosi 20—25, flavi, 7—8 mm longi, tubo 1.5—2 mm longo, limbo anguste infundibulari, lobis 5 ovato-oblongis apice atro-brunneis puberulis. Antherae lineares, basi obtusae; styli rami recurvati, subtruncati, papilloi. Achaenia subcylindrica, 2.5—3 mm longa, glabra, costata. Pappi setae albae, c. 7 mm longae.

Sichuan (四川): Daocheng (稻城), Santuixian (桑堆乡) in declivo alpino, alt. 4800 m, 21 Aug. 1973, Exped. Veget. Sichuan (四川植被调查队) 3877 (Typus, PE), 3884.

外形酷似窄叶千里光 *S. drukensis* Marq. et Shaw, 但植株近无毛; 叶两面无毛, 近全缘, 干时常反卷; 叶柄无翅; 头状花序通常 3—4 个, 在茎上端总状排列; 总苞较宽, 径 5—8 mm; 总苞片无毛, 顶端及边缘有流苏状细齿; 舌状花的管部上端被微毛, 与后者显然不同。

大花千里光 新种 图版 1: 图 4

Senecio megalanthus Y. L. Chen, sp. nov.

Species habitu *S. thianschanicus* Regel et Schmahl. similis, sed capitulo magno saepe ad apicem caulis solitario, involucri 15—20 mm diam. basi bracteolis 10—13, praedito phyllariis involucri 21—23, foliis subtus dense albo-araneosis facile differt.

Herba perennis, rhizomate brevior radices fibrosas paucas edente. Caulis tenuis, 5—15 cm altus, erectus vel basi leviter curvatus, simplex, viridis, albo-araneosus vel interdum glabrescens. Folia basalia inferioraque sub anthesi viva, longe petiolata; lamina papyracea, ovata, obovata vel spatulata, rarius subrotundata, 1.5—4 cm longa, 1—1.7 cm lata, apice obtusa vel rotundata, rarius acutiuscula, basi cuneata vel in petiolum 1.5—3 cm longum subito angustata, margine subintegra vel repando-dentata, supra viridis, sparse araneosa vel plus minus glabrata, subtus dense albo-araneosa, nervis lateralibus 2—3-jugis, inconspicuis; petiolo leviter dilatato, examplexicauli; ea media oblonga vel oblongo-spatulata, 2—4 cm longa, 5—8 mm lata, subsessilia vel brevi-petiolata, apice obtusa vel acutiuscula, basi cuneata, leviter dilatata, amplexicaulia, subintegra vel obscure repanda, superiora minora, bracteiformia, linearia, 5—10 mm longa. Capitula ad apicem caulis solitaria, erecta vel declinata, subsessilia vel breve pedunculata. Involucri campanulatum vel campanulato-hemisphaericum, 10—13 mm longum, 15—20 mm latum, basi bracteolis 10—13 linearilanceolatis purpureis, 5—7 mm longis acuminatis margine brunneo-scariosis fimbriatisque dorso sparse araneosis vel glabrescentibus praeditum; phyllaria 21—23, linearilanceolata, 10—11 mm longa, 1—1.5 mm lata, herbacea, anguste scarioso-marginata, superne et margine purpurea, puberula, dorso sparse puberula vel glabra. Flosculi ligulati 10—13, tubo 3.5—4 mm longo, ligulis flavis oblongis 10—11 mm longis 2.5—3 mm latis, apice 3-denticulatis, 4-nerviis; ei tubulosi, 8—9 mm longi, tubo c. 3 mm longo, limbo anguste infundibulari, lobis triangulari-ovatis, apice puberulis. Antherae lineares, basi obtusae; styli rami obtusi, papilloso. Achaenia (immatura) cylindrica, 2—2.5 mm longae, glabra. Pappi setae albae, 10—11 mm longae.

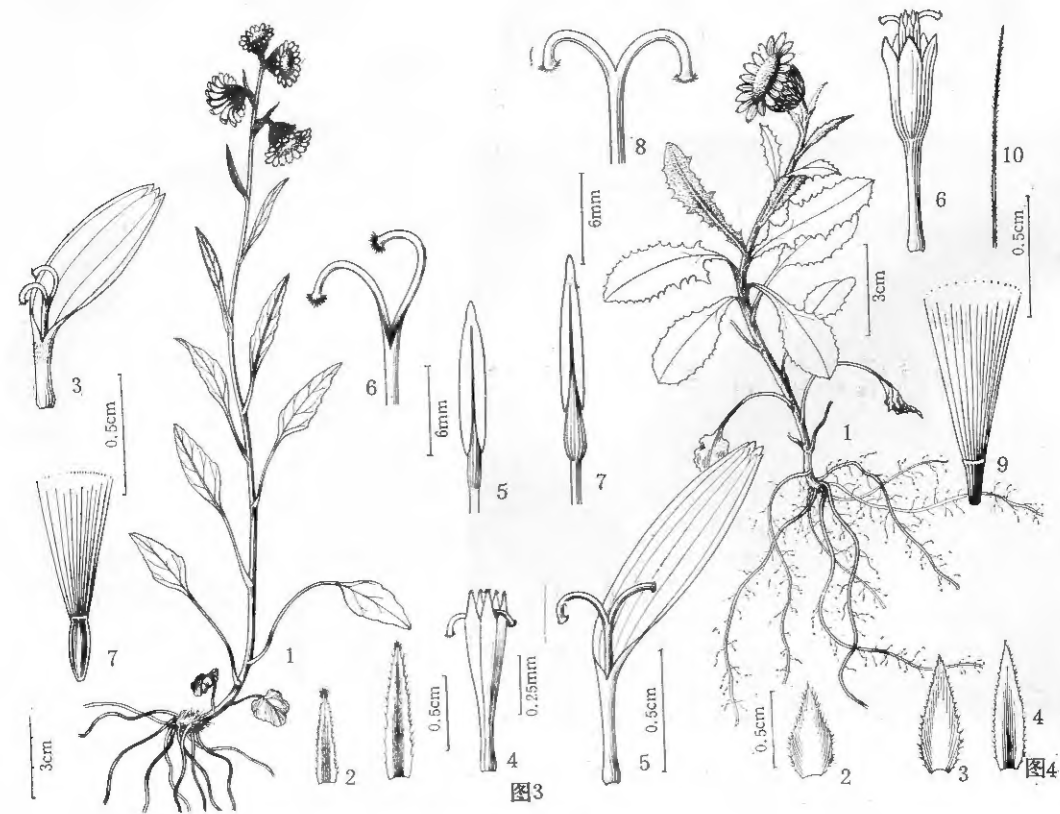
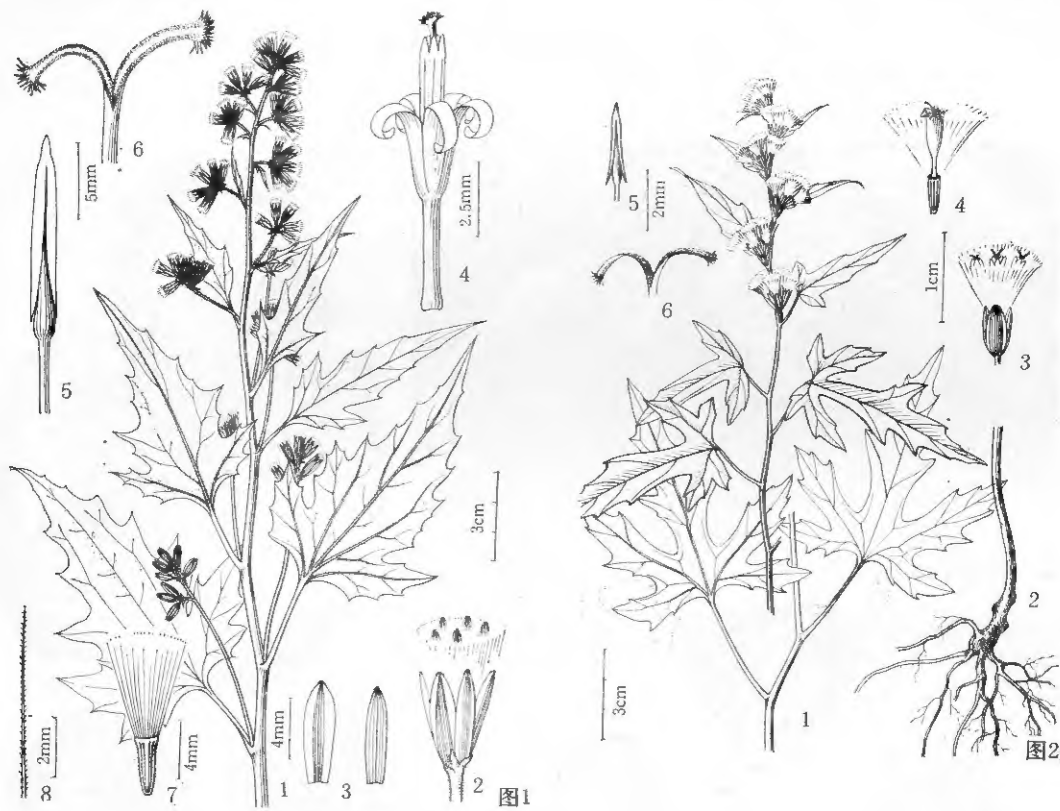
Sichuan (四川): Xiangcheng ad Litang (乡城至理塘), in declivo alpino lapidoso, alt. 4800 m, Exped. Qingzang. (青藏考察队) 81-4995; ibidem, Sichuan vegetation Exped. (四川植被调查队) 3162 (Typus, PE); Kangting (康定), Zedo shan (折多山), in prato lapidoso, alt. 4100 m, Tsiang Xing-lin et Zhou Zi-hua (蒋兴林, 周济华) 3162.

本种外形与天山千里光 *S. thianschanicus* Regel et Schmahl. 十分近似, 但头状花序大, 单生于茎端; 总苞宽达 2 cm, 基部具 10—13 个小苞片; 总苞片 21—23, 顶端具流苏状细齿; 叶下面密被白色蛛丝状柔毛, 容易识别。

图版说明 Explanation

- 图 1 木里尾药千里光 *Synotis muliensis* 1. 植株 habit; 2. 头状花序 capitulum; 3. 总苞片 phyllaries; 4. 管状花 disc-floret; 5. 花药 anther; 6. 花柱分枝 style-arms; 7. 瘦果 achene; 8. 冠毛 pappus-hair.
图 2 掌裂尾药千里光 *S. palmatisecta* 1—2. 植株 habit; 3. 头状花序 capitulum; 4. 管状花 disc-floret; 5. 花药 anther; 6. 花柱分枝 style-arms.
图 3 稻城千里光 *Senecio daochengensis* 1. 植株 habit; 2. 总苞片 phyllaries; 3. 舌状花 ray-floret; 4. 管状花 disc-floret; 5. 花药 anther; 6. 花柱分枝 style-arms; 7. 瘦果 achene.
图 4 大花千里光 *S. megalanthus* 1. 植株 habit; 2—4. 总苞片 phyllaries; 5. 舌状花 ray-floret; 6. 管状花 disc-floret; 7. 花药 anther; 8. 花柱分枝 style-arms; 9. 瘦果 achene; 10. 冠毛 pappus-hair.

(张秦利绘)



图版说明见文末